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Marine Corps Sourcing Competitions

*Historical Performance and
Directions for Improvement*

Nancy Y. Moore, Rick Eden, Mark Wang

National Defense Research Institute

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PREFACE

Marine Corps leaders recognize the need to improve support to expeditionary forces. To help explore options for improving logistics, the Marine Corps asked RAND to undertake a research effort with two perspectives. One perspective explores options for improving the Marine Corps' logistics through a top-down analysis of the totality of logistics processes. The second perspective is from the bottom up, comprising analyses that (1) measure order-and-ship and repair-cycle times and (2) examine outsourcing options. By analyzing options from two perspectives, the research aims to achieve both a broad, integrated overview and detailed evaluations of selected initiatives undertaken in the field.

This documented briefing summarizes our research on outsourcing history and options from the bottom-up perspective. It examines the Marine Corps' past sourcing competition experience and those commercial activities that are available for sourcing competition; reviews the Marine Corps' plans for future sourcing competitions to develop savings for modernization; and recommends actions to improve the efficiency, effectiveness, and outcomes of future sourcing competitions. It should be of interest to Marine Corps personnel involved with planning or executing servicing competitions.

This research was sponsored by the Deputy Chief of Staff for Installations and Logistics (I&L), U. S. Marine Corps. It was conducted within the Forces and Resources Policy Center of RAND's National Defense Research Institute, a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the unified commands, and the defense agencies.

Comments may be sent to the principal investigators leading this project, by e-mail to Nancy Moore (nancy@rand.org) and David Kassing (David_Kassing@rand.org), or by post to:

RAND
1700 Main Street
P.O. Box 2138
Santa Monica, CA 90407-2138

CONTENTS

Preface	iii
Tables	vii
Summary	ix
Acknowledgments	xi
Acronyms	xiii
1. BACKGROUND AND INTRODUCTION	1
2. EVALUATING PAST USMC SOURCING COMPETITIONS	8
3. IMPROVING THE USMC SOURCING PROCESS	22
Appendices	
A. Analysis of USMC Commercial Activity (CA) Database to Target Sourcing Opportunities	37
B. There Is Confusion over Which Reason Codes to Use	61
References.....	67

TABLES

A.1.	Differences Between DONOMIT Survey and CAIRS Data	43
A.2.	Differences Between Validated Billets and CAIRS Data	45
A.3.	Differences Between Validated Billets and DONOMIT Data	46
A.4.	Discrepancies for Other MWR Billets Suggest Accuracy of CA and DONOMIT Data Is Questionable.....	47
A.5.	Civilian, Military, and Contractor Labor Force at USMC Installations	60
B.1.	1992 and 1996 Guidelines for Specifying CAIRS Reason Codes	62
B.2.	1992 and 1996 Guidelines and Installations	63

**Marine Corps Sourcing Competitions:
Historical Performance and Directions
for Improvement**

SUMMARY

The United States Marine Corps (USMC) has long recognized the need to save money wherever possible. Indeed, the USMC prides itself on doing the most with the fewest resources. But, pressure is growing to do so even more. The USMC needs to find funds to modernize itself. With the deficit and growing entitlement programs continuing to exert budget pressures to reduce costs, budget increases are unlikely. Finding savings in the USMC's support infrastructure is one way to help fund USMC modernization.

While the USMC needs to strive continually for efficiency, effectiveness is paramount. Thus, options for reducing costs must either sustain or improve the USMC's expeditionary capability. In addition, freeing up Marines from support activities for activities more directly related to their mission is another desirable outcome anticipated from USMC efficiency efforts.

Sourcing competition, in which the cost and other performance metrics of internal USMC providers of services are compared with those of other DoD, government, or private-sector providers, can help achieve the efficiencies needed to obtain the above objectives and has

been demonstrated as one promising way to reduce costs and improve performance. The USMC already uses outside providers for many of its services (e.g., support of Blount Island, a USMC installation). However, the capabilities of outside providers have grown and there are now many more opportunities to leverage the capabilities of high-performing non-USMC providers.

The USMC's past performance using the traditional A-76 process (outlined in Office of Management and Budget Circular A-76 [1996, p. 35]) for competing billets (personnel positions), classified as "commercial activities"—"the process resulting in a product or service that is or could be obtained from a private-sector source"—has been limited, slow, and often ineffective. Depending on the composition (i.e., civilian versus military), number, and activity of the billets, alternative processes to A-76 exist and can be used to speed the process and improve its outcomes. However, to reach its ambitious goals of reducing support costs through sourcing competitions, the USMC ultimately needs to improve its overall sourcing strategy (what it subjects to sourcing competition), process (how it makes sourcing decisions), and performance (speed, completion, outcomes).

ACKNOWLEDGMENTS

We wish to thank Mr. Tom Upton for his help in obtaining data on Marine Corps sourcing competitions. We also wish to thank Lieutenant Colonel Andrew Campbell and Captain Steven Pellegrino for their help in updating us on ongoing Marine Corps sourcing plans.

At RAND, we wish to thank our colleagues Marc Robbins and John Dumond for their valuable comments on an earlier version of this document. We want to particularly thank Ed Keating, who extracted USMC-unique information from the DoD Commercial Activities Management Information System (CAMIS) for this report.

We also wish to thank Susan Gates and Ed Keating for providing their insightful reviews, Carol Zaremba for managing the revisions, and Marian Branch for carefully editing this document.

ACRONYMS

ACC	Air Combat Command
ADP	Automatic Data Processing
BEQ	Base Enlisted Quarters
BOQ	Base Officers Quarters
CA	Commercial Activities (database)
CAIRS	Commercial Activities Inventory Reporting System
CAMIS	Commercial Activities Management Information System
CME	Contractor Manpower Equivalent
CNA	Center for Naval Analyses
DoD	Department of Defense
DONOMIT	Department of the Navy Management Improvement Team
FY	Fiscal year
HQBN	Headquarters Battalion
HQMC	Headquarters Marine Corps
I&L	Installations and Logistics (USMC)
MCAGCC	Marine Corps Air Ground Combat Center
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MCCDC	Marine Corps Combat Development Center
MCLB	Marine Corps Logistics Base
MCO	Marine Corps Order
MCRD	Marine Corps Recruiting Depot
MEO	Most Efficient Organization
MWR	Morale, welfare, and recreation
OMB	Office of Management and Budget

PWS	Performance Work Statement
TARS	Tethered Aerostat Radar System
USA	United States Army
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy

Marine Corps Sourcing Competitions: Historical Performance and Directions for Improvement

1. BACKGROUND AND INTRODUCTION

This documented briefing analyzes one approach to lowering USMC costs and improving performance—sourcing competitions. *Sourcing competitions* are formal competitions of in-house providers with other government or commercial providers to determine the most efficient source for the service. In-house activities are required to develop the Most Efficient Organization (MEO), which is the basis for their bid to win the competition. By law, competitions are permitted for commercially designated activities, which are processes that are not essential to the military, inherently governmental, or needed for training or rotational purposes, and could be obtained from the private sector.

There are at least three reasons to perform sourcing competitions.

First, internal or external sources may mandate that they be performed. In FY96, the Office of the Secretary of Defense took funds away from the services and mandated that they be spent on outsourcing and privatization initiatives, including sourcing competitions (Deputy Secretary of Defense, 1996).

Second, a decision to seek outside support may arise from a strategic decision to get out of the business of performing an activity because it is not a core competence and the resources (both capital and management) are not available to keep the activity operating at performance levels offered by other providers. By contrast, a leading provider that offers that activity as its core business will continue to invest resources to stay competitive. For example, a government agency outsources information-systems development to a leading commercial provider whose core competence is information-systems development.

Third, sourcing competitions may be driven by a desire to achieve lower costs and better performance by either motivating organic providers to improve or moving to a better-performing contractor or other government provider. Competition entails expanding the pool of prospective providers beyond the status quo and requires internal organizations to look outside their organization and benchmark external providers in search of performance gaps. *Performance gaps* are measurable differences in cost, responsiveness, reliability, quality, and other important criteria between current providers (in-house or contractors) and other providers of the same or similar services. To do such benchmarking, current providers need a thorough understanding of the activities they provide. This typically requires that they define and make a physical map of their activities and/or processes; measure operational performance, including costs, quality, speed, and reliability from the final customer's perspective;¹ and identify risks associated with current and alternative providers.

When a performance gap is identified, it provides incentives for organic providers to improve their performance through process improvement, reengineering, and/or reorganization. If the performance gap cannot be closed and risks of shifting work to an external provider are manageable, sourcing competitions lead to outsourcing, to what promises to be a higher-performing provider. An example of this is a service decision to compete engine overhaul because current organic performance is slow and costly (e.g., Camp Pendleton outsourced the overhaul of the 6.2L engine).

Depending on the activity, the USMC may have one or more of these reasons to seriously pursue sourcing competitions.

¹There may be internal customers before the activity's output reaches the customer at the end of the value chain.

USMC Based Expected Savings from Sourcing Competitions on CNA Analyses

NDRI

Service	Competitions Completed	Anticipated Savings*/yr (FY96 \$M)	Anticipated Percent Savings*
Marine Corps	39	\$ 23	34%
Army	510	\$ 470	27%
Air Force	733	\$ 560	36%
Navy	806	\$ 411	30%
TOTAL	2,138	\$1,478	31%
	52% won by contractors	78% from contractors	

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* Over original government cost estimates.
SOURCE: Tighe et al. (1996).

The main reason that USMC leadership plans call for increasing the number of sourcing competitions is to help meet their support-savings goals for financing modernization. The Marines have targeted base commercial activities, representing \$370M per year in the USMC budget, for competition and have budgeted \$34M from FY 98 through FY 01 to spend on sourcing competitions. The \$34M was estimated with a Center for Naval Analyses metric that estimates the cost of the competition at 10 percent of the value of the activity being competed. The USMC estimates that about \$340M in activities are eligible for sourcing competitions.

The USMC currently plans to compete 5,000 USMC billets.² Savings from sourcing competitions are budgeted to grow from \$20M per year in FY 00 to \$110M per year in FY 04.^{3,4} Published estimates of

²Phone conversation with Mr. Rick Azzarano at P&R, November 26, 1997.

³Whether the USMC will be able to capture all the planned savings within the 5-year time frame is open to question (see Section 2).

⁴Assuming an average billet costs \$50,000 per year, we estimate that 2,200 jobs would need to be eliminated to obtain \$110M/yr in savings if all sourcing competitions were won by in-house providers. To get these savings by competing 5,000 billets requires an average savings of 44 percent through competition. If actual savings are less, then the number of billets competed would need to increase in order to reach the goals. If contractors win some competitions, the number of billets eliminated will be greater than 2,200. Because of separation pay and save pay (pay levels that are initially retained when civilians move to a lesser-paying job because their job has been eliminated or they have been displaced by someone with a higher preference), and the time it

anticipated (ex ante) savings from past USMC competitions suggest that substantial savings may be possible.⁵ The Center for Naval Analyses added up these estimates of savings from 39 completed USMC sourcing competitions and got \$23 million per year in FY 96 dollars (Tighe et al., 1996, p. 7). If realized, anticipated that savings for an average USMC cost competition would be 34 percent.

However, the size of these anticipated savings is open to debate, because actual savings from cost competitions have never been systematically measured ex ante and may be less than anticipated.⁶ CNA found that 52 percent of the competitions were won by contractors, and that 78 percent of the total anticipated savings came from those competitions that contractors won. When CNA analysts examined Navy cost-competition data in more detail, they found that anticipated savings averaged 40 percent when contractors won and 20 percent when the MEO won. Lastly, CNA found that anticipated savings were much higher, by 50 percent, when military billets, as opposed to civilian billets, were outsourced.

These analyses suggest that the USMC might have reaped substantial savings from past sourcing competitions and that savings from additional competitions may be increased by focusing on activities for which there is likely to be a significant cost gap between an MEO and commercial providers. However, savings from competing military billets may be minimal or negative, because current plans call for any Marines who are displaced by sourcing competitions to be reassigned to mission-related activities.

actually takes to terminate civilian employees, the ability of the USMC to capture planned savings in the short run may be highly limited.

⁵These anticipated savings are based on original government cost estimates of initial costs and the value of the winning in-house (Most Efficient Organization, MEO) or contractor bid as recorded in the DoD Commercial Activity Management Information System (CAMIS) database.

⁶See Robbert, Gates, and Elliott, 1997, pp. 53–54, for a discussion of the impact of bumping, save pay, and employee reassignments on anticipated savings. Also see p. 48 for a discussion of contracting cost escalation due to poor Performance Work Statements.

Requirements for Cost-Comparison Studies Are Set by Legislation, and by OMB and DoD Policy

NDRI

- **Required when**
 - 11 or more civilian jobs involved
 - Expedited if all civilian jobs can be relocated
- **Not required under some circumstances**
 - Military jobs
 - 10 or fewer civilian jobs
 - Exiting the business (i.e., no contract required)
 - Core activity; primary measure is *not* cost
 - Repair depots (public/private competitions)

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USMC's plans to increase sourcing competitions are circumscribed by a number of laws and DoD directives for making sourcing decisions involving in-house activities. The predominant directive—the *Revised Supplemental Handbook to Office of Management and Budget Circular A-76* (revised March 1996)—is a cost comparison.

An A-76 cost competition is usually required when 11 or more civilian jobs are being considered for outsourcing. A-76 cost competitions are not required in all cases. They may be waived even when required. OMB has recently allowed conversion to contract without cost comparisons if fair and reasonable prices can be obtained through competitive award, all civilians can be relocated to other jobs, and successful outsourcings of the same activities have occurred. The service Assistant Secretary or Departmental Agency Head may waive cost comparisons for direct conversions if there will be a significant financial or service quality improvement (OMB, 1996, p. 10).

Direct conversions from in-house to contractor provider are allowed, without cost competitions, when only military jobs or 10 or fewer civilian jobs are involved in the conversion. In addition, if an organization is exiting the business—that is, they will not replace the lost jobs with a contract—then a cost competition is not required.

The USMC could “get out of the business” and depend on the commercial market to provide those services to Marines and their

dependents. Housing and child care are functions for which this might occur. The Marines could be given vouchers to defray costs. OMB Circular A-76 also allows a direct conversion if an organization designates an activity as "core," which means that its performance is not measured primarily by cost.

Lastly, Congress exempts repair depots from OMB Circular A-76 cost competitions, substituting public/private competitions instead.

Summary and Outline of the Briefing

NDRI

- Introduction and Background
- ➡ • Evaluating Past Sourcing Competitions
- Improving the USMC Sourcing Process

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In an effort to help the USMC succeed in its plan to increase sourcing competitions, this research undertook two tasks. Accordingly, this briefing is organized with two sections corresponding to those tasks.

In Section 2, we assess the USMC's capability to perform A-76 studies by evaluating past USMC experience. The record shows this experience to be both dated and poor.

In Section 3, we suggest ways in which the USMC could improve its capability to perform sourcing competitions, particularly A-76 studies, as well as outsourcing in general.

Comparison of DoD A-76 Studies' Status

NDRI

Service	Total	Completed	Cancelled	In-Progress
Air Force	1,192	767	405	20
Army	871	517	315	39
Navy	1,338	883	454	1
Marines	124	44	79	1
DoD Agencies	252	57	165	30
Total	3,777	2,268	1,418	91

RAND

SOURCE: 1978-1994 DoD CAMIS database of A-76 cost comparisons.

2. EVALUATING PAST USMC SOURCING COMPETITIONS

The DoD Commercial Activities Management Information System (CAMIS) contains records for all announced A-76 cost comparisons and direct conversions to contract from 1978 through 1994. We analyzed these data to assess the USMC experience with the A-76 process.

These data reveal that, of all the services, the USMC has the least experience with sourcing competitions. As well, the USMC's cancellation rate is almost twice that of the other services and almost the same as that for defense agencies, which have the highest cancellation rate: 65 percent (Keating, 1997, p. 10).

Past USMC Cost Comparisons, by Installation

NDRI

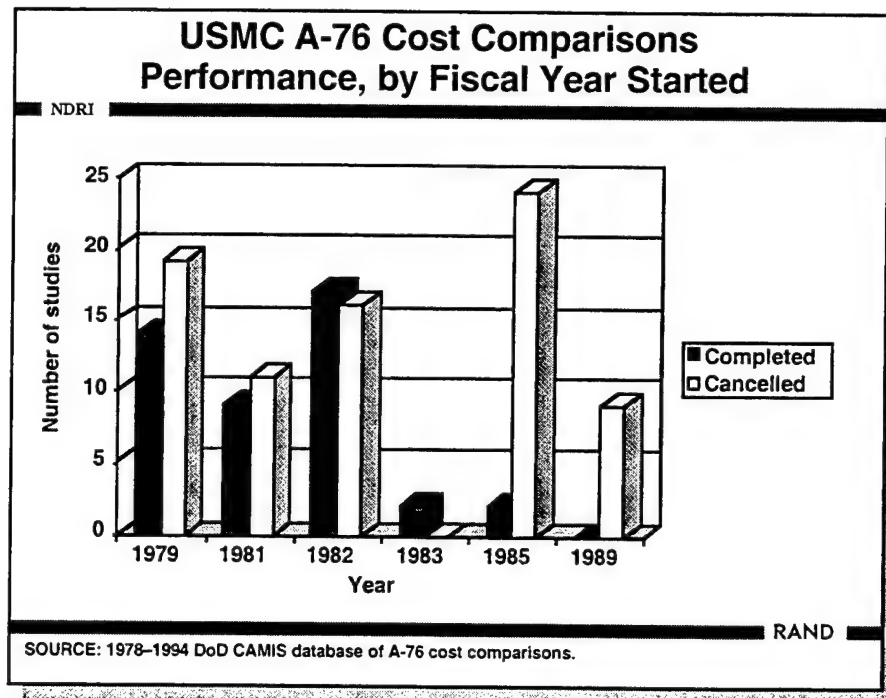
Installation	Studies Completed	No. Billets		Studies Cancelled	No. Billets		Total Studies
		Military	Civilian		Military	Civilian	
Pendleton	7	6	149	6	256	703	13
Lejeune	5	6	250	8	162	857	13
Kaneohe Bay	5	33	164	4	72	68	9
Quantico	5	8	119	5	247	518	10
Parris Island	3	45	262	1	195	0	4
Yuma	3	0	68	1	26	18	4
Beaufort	3	0	35	3	19	126	6
Albany	3	0	60	4	46	169	7
El Toro	3	12	25	8	65	154	11
Cherry Point	2	0	52	0	794	506	9
San Diego	2	31	112	6	215	560	8
Twenty-Nine Palms	1	0	2	3	19	110	4
Smith	1	49	0	3	61	0	4
Barstow	1	0	31	12	35	517	13

(Cancelled: Kansas City - 5, Arlington - 3, MCCDPA - 1)

RAND

SOURCE: 1978-1994 DoD CAMIS database of A-76 cost comparisons.

When we looked at USMC sourcing competitions by installation, as summarized in the table above, we found that Camp Pendleton completed the most studies and Barstow cancelled the most sourcing competitions. Thirteen is the most sourcing competitions started at an installation over the past 14 years, which equates to an average of just under one study per year. However, many installations have much less experience.



Arraying the record by year reveals that USMC's experience with the A-76 process is not only limited but also dated. The figure above shows that the USMC started the most competitions in 1979 and 1982 and cancelled the most competitions in 1985. Most competitions were completed in or before 1982.

Throughout the DoD, the number of sourcing competitions started and completed sharply declined in the mid-1980s (Keating, 1997, p. 4). Further, those DoD-wide sourcing competitions started in the late 1980s were particularly vulnerable to cancellation (Keating, 1997, p. 13), and the real dollar value of completed sourcing competitions declined from a peak in FY 80 (Keating, 1997, p. 21). Lastly, the number of A-76 completions was curtailed significantly by legislation that gave installation commanders sole authority to initiate A-76 studies between 1990 and 1995 (Robbert et al., 1997, pp. 20-23) and a moratorium on contracting out services between 1993 and 1994.^{7,8}

This record suggests that there are probably very few people within the USMC today with much or any experience in conducting successful sourcing competitions.

⁷Studies could be completed, but contracts could not be executed. Indeed, the Air Force chose to compete some activities during this moratorium.

⁸The correlation between installation-commander authority and a decline in cost comparisons suggests that commanders have little or no incentive to outsource.

USMC Has Competed Relatively Few Billets in Few Functions

NDRI

Function	USAF	USA	USMC	USN	DoD Agencies	Total
Base Maintenance	2,248	3,025		449		5,722
Installation Services	2,770	12,463	969	8,115	175	24,492
Real Property Maint.	3,583	221	432	5,167		9,403
Social Services	968	2,493		779	641	4,881
Other Nonmfg.	6,061	4,026	79	7,406	118	17,690
Intermediate Maint.	8,918	4,864		2,160	353	16,295
Automatic Data Processing	842	494	6	1,056		2,398
Depot Repair	37			75	469	581
Education & Train.		18		1,106		1,124
Health Services	207	389		7		603
R & D Services	754					754
	26,388	27,993	1,486	26,320	1,756	83,943

RAND

SOURCE: 1978-1994 DoD CAMIS database of A-76 cost comparisons.

USMC has competed relatively few billets in few functions.⁹ Our analysis of CAMIS data indicates that, over the 16-year period, of the almost 20,000 billets identified as "commercial activities," the USMC has successfully competed only 1,486 billets in four functional areas¹⁰ as compared with almost 84,000 billets competed DoD-wide in 11 functional areas.¹¹ This comparison suggests that the USMC may have many remaining opportunities for sourcing studies and potential savings in a broad range of functional areas. Looking at functions that have been successfully competed throughout the DoD may help the USMC target areas for expanded sourcing competitions.

⁹Although all of these billets were competed, some competitions were won by contractors and some by the MEO.

¹⁰Some of these commercial billets are ineligible for sourcing competitions because they are classified or inherently governmental, needed for rotation, or deployable during a contingency.

¹¹As we discuss later in this section, the USMC started many more sourcing competitions that were eventually cancelled.

Top 10 Functions DoD-Wide, with Completed Comparisons and Highest Total Dollar Value			
NDRI			
Function(s)	Completed	Percent Outsourced	Value \$M/yr
Commissary Store Operations	126	85	
Custodial Services	108	78	65
Administrative Telephone Service	98	47	
Build. & Structures—Family Housing	98	62	139
Grounds and Surfaced Areas	90	56	60
Storage and Warehousing	82	48	87
Audiovisual & Visual Info Services	80	35	72
Aircraft Maintenance	79	78	258
Refuse Collection & Disposal Svcs	68	47	
Buildings and Structures Maint.	65	52	
Base Maint. /Multi-Function			158
Multi-function Maint./Inst. Svcs			83
Food Services			79
RDT&E Support			76
Motor Vehicle Oper. & Maint.			66
RAND			
SOURCE: 1978–1994 DoD CAMIS database of A-76 cost comparisons.			

To analyze completed competitions, we sorted the DoD-wide CAMIS file to identify the functions that have most frequently been successfully competed. Commissary store operations and custodial services were the top two functions with completed studies. These two, along with aircraft maintenance, also resulted in the highest percentage of contractor wins among the top 10 functions competed.

Within the USMC, installation services and real property maintenance are the top two functions with successfully completed A-76 cost comparisons. These activities represent prospective targets for sourcing competition for the USMC: They will have Performance Work Statements (PWSs; such statements describe what work will be done and how it will be done) the USMC can review, and the USMC may also want to obtain additional information from specific competitions on how well the winners (both in-house and contractors) are performing.

Because savings are one important goal of sourcing competitions, we also used the CAMIS database to rank successful DoD-wide sourcing competitions according to functional area with the highest total dollar value per year, also summarized in the above chart. Aircraft maintenance tops the list in total dollar value. It also has a high percentage of contractor wins associated with competitions. Food service and grounds maintenance functions have very high total dollar values among successful sourcing competitions within the

USMC (see Appendix A). Total dollar value does not necessarily mean greatest savings or best outcome from a competition. However, the USMC may want to examine more closely these activities and their outcomes as prospective targets for sourcing competitions.¹²

¹² The vast majority of DoD sourcing competitions, 79 percent, were for only one function. Only 10 percent of the competitions were for four or more functions. The number of functions included in a sourcing competition determines the time allotted to complete the competition. Congress requires that sourcing competitions of only one function be completed in two years. Competitions of more than one function are given four years to complete.

Comparison of the Number of Personnel Billets Evaluated in Completed A-76 Studies

NDRI

Billets	Total	Mean	25%	Median	75%
Civilian					
USMC	1,301	30	5	15	42
DoD	65,741	31	5	12	28
Military					
USMC	185	4	0	0	1
DoD	18,973	9	0	0	1
Total					
USMC	1,486	34	6	18	48
DoD	84,714	40	6	14	32

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SOURCE: 1978-1994 DoD CAMIS database of A-76 cost comparisons.

A-76 cost comparisons evaluate primarily functions relying mainly on government-employed civilians (Keating, 1997, p. 25). On average, the USMC has evaluated about the same number of civilian personnel billets per sourcing competition as the DoD (30 versus 31). However, at the median and 75th percentile, the USMC had larger civilian competitions than did the DoD average. For both the USMC and DoD, the median is much smaller than the average, which suggests that there are many small sourcing competitions and a few large ones that drive up the average.

The USMC has competed many fewer military personnel billets than the DoD average. Overall, the USMC average number of total personnel billets competed is smaller than the DoD average, but its median and 75th percentile numbers are again somewhat higher.

Comparison of the Number of Personnel Billets by Winners of Completed A-76 Studies

NDRI

Winner	Total	Mean	25%	Median	75%
Contractor					
USMC	674	37	6	16	47
DoD	49,549	46	8	16	32
MEO					
USMC	812	31	6	21	49
DoD	35,120	33	5	11	28
Total					
USMC	1,486	34	6	18	48
DoD	84,714	40	6	14	32

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SOURCE: 1978-1994 DoD CAMIS database of A-76 cost comparisons.

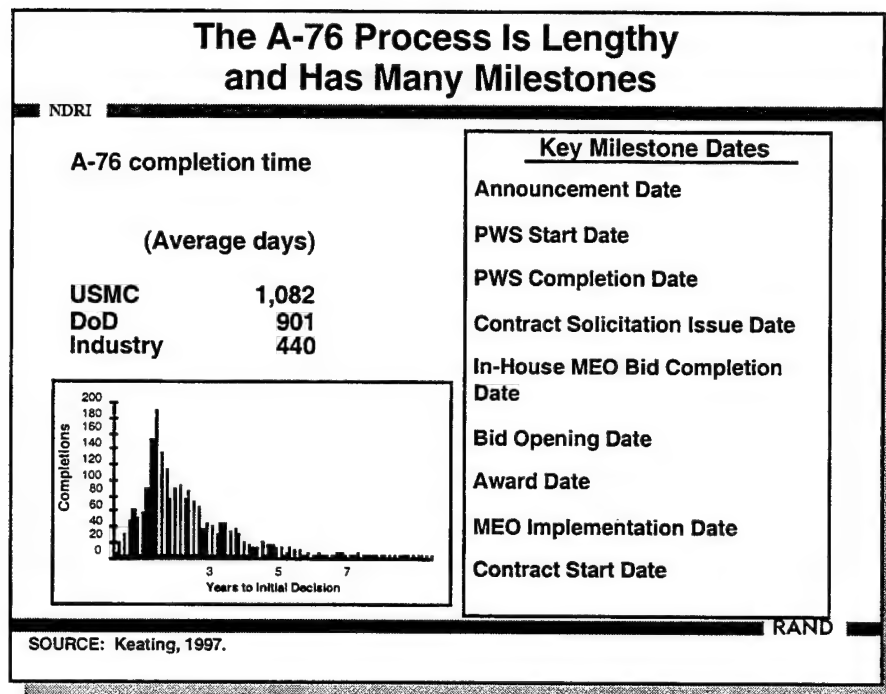
In-house activities and contractors each won about half of the cost comparisons (Keating, 1997, p. 18); however, slightly more than half (55 percent) of the personnel billets competed by the USMC were won by in-house bids compared with the 58 percent won by contractors for the whole DoD.

Further, while the average size of USMC personnel billets was higher for competitions won by contractors than for competitions won by in-house bids, the median and 75th percentile numbers suggest that in-house bids won the larger competitions.

USMC Sourcing Competitions Have Taken Longer to Do Than the DoD Average Has				
NDRI				
Time (in days) from Start to:	Mean	25%	Median	75%
Initial Decision				
USMC	925	358	856	1,262
DoD	809	452	664	1,041
Final Decision				
USMC	1,082	537	994	1,478
DoD	907	506	748	1,186
RAND				
SOURCE: 1978–1994 DoD CAMIS database of A-76 cost comparisons.				

The USMC has taken longer—almost three to seven months longer—to do its sourcing competitions than the DoD average. If the USMC needs to quickly reap sourcing-competition savings, it will have to pay particular attention to shortening the time it takes to do those competitions.

The DoD CAMIS file contains date stamps that record the duration of the cost-comparison process. Data show that it often takes a long time from announcement of a cost competition until a final decision is made: on average, 901 days for the DoD to complete an A-76 cost comparison—which is 181 days shorter than that for the USMC—but much longer than the industry average of 440 days (Anderson, 1995). This may be because the USMC is less experienced at doing A-76 cost competitions than either the DoD or industry.



A more detailed look at the key milestone dates in the A-76 process, listed on the right of the above chart, helps make clear why a source competition can take so long to complete (Keating, 1997, p. 35). The figure at the bottom of the slide plots the distribution of realized durations for all DoD sourcing competitions between the date a cost comparison is announced and the date an initial decision is made.¹³

Not only are average completion times long, they are also highly variable, for two main reasons: the times it takes to prepare a Performance Work Statement and the time to prepare the in-house Most Efficient Organization bid, both of which are typically sequential tasks. The PWS is supposed to accurately describe the work to be done and the performance metrics for its accomplishment. Ideally, the development of a PWS should include market research on leading

¹³The final decision date falls, on average, 92 days after the initial decision. However, the winning contractor or government employees often start to perform the work before the final decision date. Performance start date is missing on many records, so we focus on the time from the announcement date to the initial decision date in this analysis (see Keating, 1997, p. 35).

commercial performance benchmarks and practices for the provision of the activity.¹⁴ An MEO is the in-house bid for the work.

In the past, both of these have taken a considerable amount of time to prepare, because of the lack of training and experience of the people developing the PWS and MEO, as well as the lack of incentives for the people to develop them (Robbert et al., 1997, pp. 48–50).

¹⁴The past reality is described by Robbert et al. (1997, p. 48): “PWSs often tend to understate workload requirements or leave out important activities,” which often leads to increases in the costs of the contract.

USMC Performance of A-76 Cost Comparisons Needs Substantial Improvement

NDRI

A-76 performance levels	Anticipated Savings* per Year (\$M)	Billets Completed per Year	Competition Completion Rate
1978–1991 USMC study history: 124 started, 44 completed	1.8	106	35%
Needed to achieve \$110M/yr savings goals by 2004	22.0	1,467	100%

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* Assumes 30 percent savings per billet competed @ \$50K/billet

These analyses of the USMC past performance with the A-76 process indicate that, to achieve its current savings goals, the service will need to substantially improve its performance.

As we can see, from 1978 through 1991, the USMC started 124 A-76 cost comparisons, but completed only 44—a 35-percent completion rate.^{15, 16} During that time, the USMC successfully competed 1,486 billets, for an anticipated annual savings of \$23 million. This equates to an average USMC A-76 studies rate of 3 studies per year and 106 billets per year, and anticipated savings of \$1.8 million per year (Keating, 1997, p. 35).

¹⁵Cost comparisons started in the late 1980s were particularly vulnerable to cancellation. One possible reason is the present policy first promulgated in the FY91 Appropriations Act and continued in subsequent appropriations, of cancelling single-function initiatives after two years and multifunction initiatives after four years if they have not yet reached bid opening. This legislation applied to comparisons in progress at the time, as well as those started in FY91 and later. Hence, a comparison started in FY87 but not yet completed in FY91 was to be immediately terminated. Assumes 30-percent annual savings per billet competed at \$50K/billet, based on CNA estimates of anticipated savings.

¹⁶The legislatively imposed limit on the duration of cost-comparison studies has led to studies being cancelled and restarted, which could lead to an underestimate of the percentage of studies completed. (See Robbert et al., 1997, p. 24.)

For the USMC to achieve its savings goal of \$110 million per year by 2004 from A-76 studies alone would require that it compete 1,467 billets per year for an average savings of \$22 million per year, assuming a 100-percent completion rate.¹⁷

Further, the USMC has studied an average of 30 billets per A-76 study. It would have to begin about 220 A-76 studies per year for the next five years to reach its savings goal.

Given that the USMC plans to compete many more billets and to achieve a much higher success rate, it is unlikely that it can do so without improving how it performs A-76 studies. Directions for such improvement are the focus of the next section.

¹⁷ Assumes 30-percent annual savings per billet competed at \$50K/billet, based on CNA estimates of anticipated savings. Given that CNA's estimates are ex ante estimates of planned local, not global, savings and the dearth of broad ex post studies, the actual number may be very different. If real USMC-wide savings are much less, the USMC will need to compete many more billets or find other ways to meet its savings objectives.

Summary and Outline of the Briefing

NDRI

- Introduction and Background
- Evaluating Past Sourcing Competitions
- ➔ • Improving the USMC Sourcing Process

RAND

The final section of this documented briefing offers recommendations for improving the USMC performance of the A-76 process, as well as outsourcing generally.

Three Ways to Improve Outcomes from USMC Sourcing Competitions

NDRI

- Improve sourcing process, including the capability to conduct A-76 cost comparisons
- Increase the pool of activities to compete
- Improve performance of currently outsourced activities

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3. IMPROVING THE USMC SOURCING PROCESS

We see at least three ways to improve USMC sourcing competitions. We discuss each way in more detail below.

There Are Many Ways to Improve the A-76 Process

NDRI

- **Develop process maps for all key activities**
- **Use model PWSs and modify as needed**
- **Compete larger bundles**
- **Improve Commercial Activities and Contracting databases to better target opportunities**
- **Provide training in Activity Based Costing and A-76 process**
- **Develop performance metrics**
- **Collect/update/improve baseline performance measures for all in-house and contracted activities**
- **Institute continuous improvement**

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There are many ways to improve the cost, quality, and time of the A-76 cost-comparison process.

First, if each USMC activity defined its work and developed process maps as a part of the USMC's Total Quality Leadership Performance Improvement Program, it would provide a guide for writing the Performance Work Statement.¹⁸

Second, for those activities that occur at different locations throughout the DoD, the USMC could begin with PWSs and MEOs that were developed from recent A-76 competition as a baseline that could be modified (as opposed to starting from scratch) to accurately portray the activity being competed. In addition, looking at past competitions throughout the DoD may also help the USMC identify ways to leverage the greater experience of the other services to improve the completion rate and successful outcomes¹⁹ of their A-76 studies.

Third, the USMC can compete larger "bundles"—the number of activities and sites included in the competition. Data suggest that

¹⁸These efforts are typically done at the local level in response to specific performance-improvement initiatives.

¹⁹The goals of the sourcing competition were met (i.e., savings, improved performance) and continue to be met (i.e., winners have not failed or continue not to fail to perform).

larger sourcing competitions have greater savings and smaller per-billet study costs. Depending on economies of scale and scope, and on leading commercial market practices, the USMC may want to increase the number of activities and/or locations, the length of contracts, the degree of management levels, or any combination of the above in its sourcing competitions.

Fourth, the USMC could improve and enhance the quality of its Commercial Activities and Contracting databases to better target activities for sourcing competitions. Missing and inaccurate information currently limit the quality of these databases (see Appendix A).

Fifth, it could provide training in the A-76 process so that staff are better prepared to do the studies.

Sixth, the USMC could train staff in Activity Based Costing, which is necessary to accurately compare the costs of alternative providers. Activity Based Costing is a methodology for allocating overhead to activities to estimate their total cost. Current USMC (and DoD) financial systems do not provide cost information in a form (by activity as opposed to budget category) that can be used easily to make cost comparisons.

Seventh, the USMC could develop outcome-oriented performance metrics for all of its activities, whether they are performed in-house or on contract. Such specific measures could be considered within the PWS. By focusing on outcomes and measuring performance, the USMC can better define, select, and manage those activities it competes.

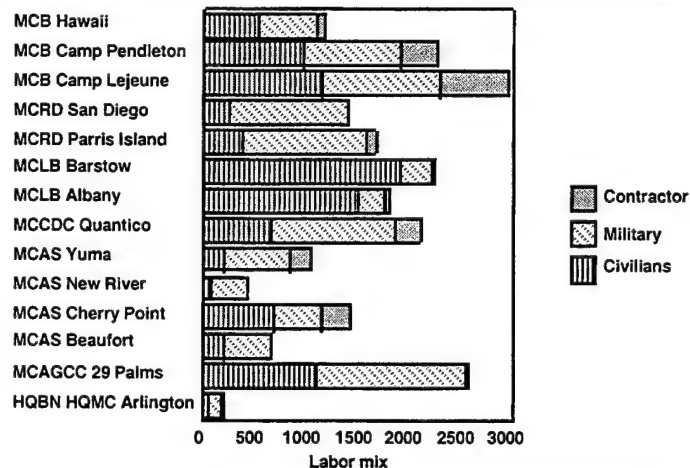
Eighth, the USMC could collect, update, and improve baseline measures of these performance metrics for all key activities.

Ninth, the USMC could institute continuous process improvement for activities that are candidates for sourcing competition, thereby helping each organization become a Most Efficient Organization even before it begins the A-76 study process.

Generally, the USMC should recognize that, because it has not completed an A-76 study since 1991, it may need to invest substantial resources in developing the infrastructure (primarily human capital, via education and training) and providing assistance to improve its sourcing performance.

Labor-Mix Differences Across Installations Suggest USMC Sourcing Opportunities

NDRI



SOURCE: 1996 USMC CAIRS database (A and B records).

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One positive consequence of USMC's limited sourcing-competition experience is that many opportunities appear to remain for the USMC to compete commercial activities. Initial analyses of the 1996 USMC Commercial Activities Inventory Reporting System (CAIRS) database (see Appendix A for a description of this database) provide a snapshot of the current status of commercial activities within the USMC.

Despite the limitations of the database,²⁰ significant differences in the mix of military, civilian, and contractors across similar installations may suggest likely sourcing-competition opportunities. The figure above shows the labor mix (civilian, military, and contractors) for commercial activities, by installation. For example, it appears that Marine Corps Recruiting Depot (MCRD) Parris Island has contracted out some services but that MCRD San Diego has not. It also appears that Marine Corps Air Stations (MCASs) Yuma and Cherry Point have

²⁰These results are likely to change as the database is revised and updated. Initial and subsequent observations suggest that the database may have some missing or incorrect data. Since Contractor Manpower Equivalents are only for contracts of \$100K or more, we know that the contractor component is an underestimate of the services provided to the USMC by contractors. See Appendix A for a discussion of initial attempts to improve the accuracy of the database. As this database is used to help the USMC manage its sourcing competitions for commercial activities, its accuracy can be expected to improve.

also contracted out some services that MCASs New River and Beaufort have not.

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* Estimated Contractor Manpower Equivalents for contracts of \$100K or more.

By revisiting mission requirements and commercial-provider capabilities, the USMC may be able to expand the pool of sourcing candidates. For example, in recent years, several new industries—overnight delivery, third-party logistics, and integrated facilities management—have emerged and are growing rapidly. USMC plans need to be adapted, where appropriate, so that these new services can be leveraged as the Air Force did when it disbanded its Log Air service and turned to the commercial sector for CONUS express delivery, which was more reliable and much cheaper (\$37M/yr versus \$120M/yr) than Log Air (“One on One,” 1992, p. 38).

The USMC also has over 2,000 Contractor Manpower Equivalents (CMEs). These are jobs that have always been performed by contractors or billets that were outsourced in the past. As mentioned in the preceding footnote, the database of USMC contractors includes only contracts of \$100K or more. Thus, we know that 2,000 is a clear underestimate of total USMC CMEs. As discussed next, recontracting these existing contracts may provide opportunities for additional USMC savings.

However, even if the contractor estimate were ten times higher, the number of commercial activities and contractor CMEs still represents a small subset of the USMC Total Force. In addition, the USMC has previously outsourced the provision of some services to other branches of the armed forces and to government agencies. For example, the Navy supplies the USMC with medical and aircraft repair services, and the Army, Navy, and Defense Logistics Agency (DLA) provide item management for a broad range of USMC parts.

Commercial Firms Are Changing How They Outsource to Increase the Benefits

NDRI

- **Bundling activities across and at locations to increase savings**
 - Reduces administrative costs for both provider and buyer
 - Leverages economies of scale and scope
- **Creating long-term partnerships**
 - Encourages provider investment in tailored resources
 - Facilitates continuous improvement/cost reduction

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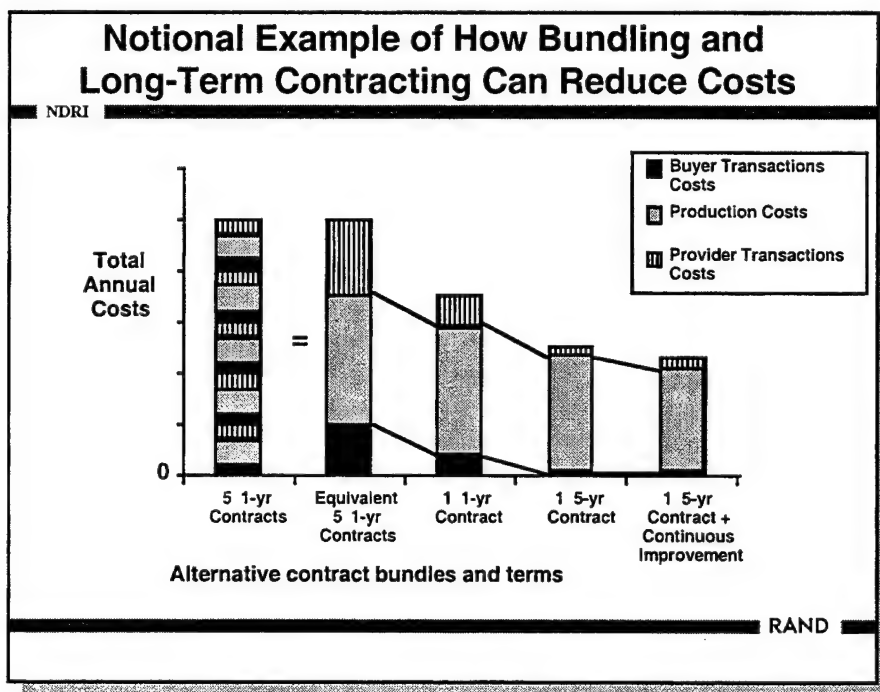
Beyond improving the A-76 process and expanding its opportunities for sourcing competitions, the USMC can improve its sourcing process by adapting innovative commercial outsourcing practices. We have observed that leading commercial firms are changing how they outsource to increase the benefits.

First, firms are dramatically reducing the number of providers with which they deal and are increasing the quality of those providers. They are bundling activities at locations and across locations to increase both external and internal savings. Bundling of activities reduces provider and buyer administrative costs, allows leveraging of economies of scale and scope, and is more likely to attract the best providers if it more closely matches leading bundling practices.

Second, leading firms are creating long-term partnerships with quality suppliers. This encourages and facilitates provider investment in resources (people, information systems, equipment, and products) that are tailored to the specific needs of customers. In addition, it facilitates continuous improvement and cost reduction, because providers are more willing to invest in a long-term relationship in which they can get a return on their investment. For example, Chrysler has reduced the number of suppliers it deals with and has eliminated the competitive bidding system. As a consequence,

Chrysler has reduced its buying staff by 30 percent and its suppliers have become partners in reducing the overall cost of Chrysler vehicles and increasing Chrysler's profit per vehicle from \$250 in the 1980s to \$2,110 in 1994 (Dyer, 1996, pp. 42-56).

The USMC currently faces external constraints (from Congress) and pressures that will limit its ability to bundle contracts and create long-term relationships. However, it needs to consider these options to the extent that they are feasible and make good sense from economic and performance perspectives.



The above figure provides a notional example of how bundling and long-term contracting can reduce overall costs.²¹ The relative size of transaction costs has been increased for visual illustration. The column at the far left stacks up the total annual costs of five 1-year contracts for the same service. These could be at five different locations within an organization. Total annual costs of a contract include *buyer transactions costs* to solicit and evaluate bids, select a provider, contract with a provider, and monitor the contract; *production costs*, which are the actual costs associated with performing the activity under contract; and *provider transactions costs*, which are the costs to bid on the contract, negotiate the contract, and manage the contract. The column second from the left is the equivalent of the five contracts with costs aggregated into one of the three cost categories.

The middle column illustrates what happens when five 1-year contracts are bundled into one 1-year contract. The transactions costs of both the buyer and provider are reduced, and, hence, total costs fall. An example of this occurred at the Bank of America (BoFA), which recently bundled all of its pest-control contracts (2,500 invoices per month) into one contract, causing its out-of-pocket costs to drop

²¹This figure was created for discussion purposes. Rebundling and changing contract terms will not always produce savings of the magnitude or in the categories illustrated above. However, they should be considered as options to further reduce costs and improve performance.

by over 50 percent. In addition to pest control, BofA has bundled other facilities-management contracts and reduced in-house-provider management staff by one-third (Schikore, 1996). The Air Combat Command (ACC) provides a DoD example. It recently bundled separate contracts for operations, maintenance, and support of the Tethered Aerostat Radar System (TARS) for Counter Drug Interdiction, reducing total annual costs by 50 percent (McFadden, 1996). Both of these are extreme examples. Cost savings from typical bundlings are likely to be much less.

The column second from the right illustrates additional cost reductions when the 1-year contract becomes a 5-year contract. Costs are reduced because some transactions costs can be spread over the 5-year life of the contract. In addition, production costs also go down because the provider now has an incentive to invest in buyer-specific improvements. The ACC TARS contract provides an example. ACC used the savings from contract bundling for equipment upgrades and modernization. It partnered with its new provider to standardize equipment and operations, and shared in the cost savings and cost avoidance through manpower reductions. As a result, TARS costs fell another 25 percent beyond the 50 percent.

The column at the far right illustrates what happens when a buyer/provider partnership is created and continuous-improvement incentives are included in the contract. The provider now has an incentive to reduce production costs, and the buyer shares in the joint benefits of provider innovations.

USMC Sourcing Competitions: Next Steps for Installations

NDRI

- **Develop metrics and measure performance of all key activities in-house and on contract**
 - Survey customers to determine performance needs and satisfaction
 - Institutionalize Activity Based Costing
- **When quick and cheap to do, improve processes**
- **Develop baseline inventory of current contracts**
- **Identify near-term, low-risk, high-payoff activities for competitions and assign to teams for execution**
 - Explore rebundling of existing contracts
- **Review/reclassify commercial activities according to current USMC plans and commercial capabilities**

RAND

Because the USMC has targeted Base Commercial Activities for its initial sourcing competitions, we have developed a number of recommended next steps for installations.

First, each installation needs to develop metrics (e.g. cost, speed, frequency) and measure the performance of all key in-house and contracted activities. Metrics and measures should be derived from the customer's performance needs. Determining these needs and the level of customer satisfaction will require a customer survey.

Because accurate costs are necessary for good management and a critical component of any sourcing competition, each installation needs to become proficient at and institutionalize Activity Based Costing and Management.

The process of developing performance and cost metrics and measurement will allow installations to target improvement and sourcing-competition resources on activities that are not performed well. Each installation also needs to develop a good baseline inventory of current service contracts.

A quick exploration of what other USMC and DoD installations have done, as well as an overview of the facilities-management market, should help to identify near-term, low-risk, high-payoff activities for competitions and assign teams for execution. (See pp. 11-13 and

Appendix A.) There may also be opportunities to rebundle some existing contracts for improved savings and performance or to add new services to existing contracts, subject to goals to promote small and disadvantaged businesses.

Lastly, each installation needs to review and, if appropriate, reclassify its commercial activities according to current USMC missions and the latest commercial capabilities. This exercise should result in an expanded list of commercial activities available for sourcing competition. The USMC has already done this once for many activities for the recent Department of the Navy Organizational Management Improvement Team (DONOMIT) survey.²² As USMC plans and the market for services evolve, commercial activities will need to be reevaluated periodically to ensure that their classification is still correct.

²²DONOMIT was a Navy attempt to improve the quality of information on commercial activities eligible for competition.

USMC Sourcing Competitions: Next Steps for HQ

NDRI

- **Develop a USMC-wide Base Commercial Activities sourcing initiative**
 - Develop performance (e.g., time, quality, costs) measurement and reporting
 - Develop policy guidance (e.g., goals, displaced employees)
- **Select/agree on initial targets**
 - Exit business (e.g., utilities, child care, housing)
 - USMC-wide bundles/rebundling (e.g., pest control)
- **Develop more-efficient and more-effective sourcing process**
 - Provide training (e.g., Activity Based Costing, A-76, benchmarking, generic PWSs)
 - Adopt processes for targeting, screening, selecting, and contracting

RAND

Headquarters Marine Corps (HQMC) has a strong role in guiding and supporting the increased use of sourcing competitions across the Corps. We have identified a number of recommended next steps whereby Headquarters can improve USMC sourcing competitions.

First, it needs to develop a USMC-wide initiative for process improvement of Base Commercial Activities. A number of data, analyses, and actions that are required for process improvement are also required for sourcing competitions. For example, the USMC needs to develop performance measurement and reporting systems to improve activities as well as compete them. Thus, this initiative would be similar to Precision Logistics, which improved the performance of key USMC logistics processes.

HQMC needs to communicate, to base commanders and staff, DoD policy regarding the goals, targets, means, and transition for sourcing competitions—for example, the current policy regarding the rights of and any compensation for displaced employees. The USMC can also choose to take advantage of available separation-incentive programs.

HQMC also needs to select and get agreement on the initial targets for sourcing competitions. It needs to determine what, if any, businesses it will consider exiting. The type of activity/business determines the process to be used for making final decisions. Examples of activities that have been mentioned within the DoD for exiting-the-business

include utilities, child care, and housing. The USMC also needs to make decisions about what activities will be considered for USMC-wide bundling or rebundling for sourcing competitions—for example, pest control and elevator maintenance.

Lastly, to develop a more-efficient and more-effective sourcing process, HQMC needs to provide training on activities such as Activity Based Costing, benchmarking, A-76 studies, and developing generic PWSs and MEOs. In addition, it needs to develop or adopt a process that helps to better target, screen, select, contract, and monitor sourcing competitions and their outcomes. Although these activities will cost more in the short run, they are an investment in better outcomes in the long run.

APPENDIX A

Analysis of USMC Commercial Activity (CA) Database to Target Sourcing Opportunities	
NDRI	
	<ul style="list-style-type: none">• Commercial Activities Inventory Reporting System (CAIRS)<ul style="list-style-type: none">– Services required to identify installation functions with commercially available services.– Functions kept in-house must specify # Civilian, # Military, reason.• Contracted functions also specified<ul style="list-style-type: none">– 84 such contracts totaling \$68.5M, 1,977 CMEs• Examine across functions and installations
	RAND

This appendix presents analyses of the 1996 USMC Commercial Activities Inventory Reporting System (CAIRS) obtained from the Total Quality Leadership Office.²³ Office of Management and Budget (OMB) Circular No. A-76 (1996, p. 35) defines a *commercial activity* as "the process resulting in a product or service that is or could be obtained from a private-sector source." Given a comprehensive list of such activities, installations are required to identify which functions exist on-post, then specify the numbers of military and in-house, i.e., appropriated, civilian personnel employed in each. Functions contracted at costs over \$100K are asked to provide information such as the number of Contractor Manpower Equivalents (CMEs) and annual cost of contract. In total, 19,955 billets were classified as "commercial activities" in the USMC's CAIRS database. A little over half of these billets were held by Marines. Civilians occupied the remainder. In addition, contractor employees, CMEs, occupied

²³The 1996 USMC CAIRS database exists in two files. The first, ARECORDS, contains information on those functions that are being performed by military or in-house civilians. The second file, BRECORDS, contains information about contracted operations.

almost 2,000 additional billets. From anecdotal evidence, we know that this is an underestimate of CMEs. This information can be used to identify those activities that are candidates for sourcing studies and rebundling.

We analyzed the CAIRS data and present it in two different ways. First, we compare how different installations employ civilian, military, or contractor labor forces for the same group of activities. Then, to show how sourcing practices in the USMC vary across sites and activities, we profile installations individually, showing their labor forces across all functions in order to identify potential targets for future competitions. The data are presented in Table A.5 at the end of this appendix.

USMC CA Database Is Incomplete and Inaccurate

NDRI

- **Missing Installations**
 - MCAS El Toro, CA
 - MCAS Tustin, CA
 - MCAS Kansas City
 - Marine Barracks, Washington, D.C.
 - MCAS Iwakuni, Japan
 - MCB Okinawa, Japan
- **Commercial contracts over \$100K only**
- **"Reason codes" redefined from 1986 to 1992**

RAND

Results of this analysis must be caveated, because the USMC's Commercial Activities (CA) database is incomplete and, at times, inaccurate. The database includes data on 14 installations, but not on six others.²⁴ USMC contracting data include only 10 installations, so they are particularly incomplete. One contributory reason for this incompleteness is that the data represent only contracts valued at over \$100K. Lesser-valued contracts are not included; we believe that they make up a significant part of the total.

Finally, since each installation is responsible for collecting and submitting its portion of the database, the data suffer from non-uniform interpretation of solicited information, so that identical functions at different installations may not be categorized similarly.

²⁴Included installations: Marine Corps Base (MCB) Hawaii, MCB Pendleton, MCB Camp Lejeune, Marine Corps Recruiting Depot (MCRD) San Diego, MCRD Parris Island, Marine Corps Logistics Base (MCLB) Barstow, MCLB Albany, Marine Corps Combat Development Center (MCCDC) Quantico, Marine Corps Air Station (MCAS) Yuma, MCAS New River, MCAS Cherry Point, MCAS Beaufort, Marine Corps Air Ground Combat Center (MCAGCC) Twenty-Nine Palms, and Headquarters Battalion (HQBN) HQMC Arlington.

Omitted installations: MCAS El Toro; MCAS Tustin; MCAS Kansas City; Marine Barracks, Washington, D.C.; MCAS Iwakuni, Japan; MCB Okinawa, Japan.

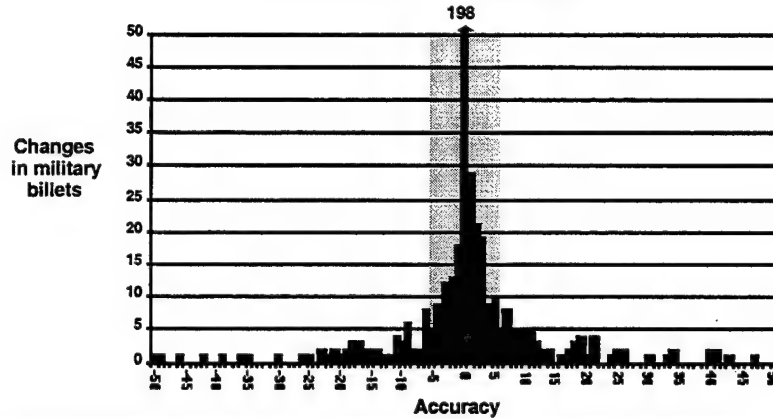
Variations in "reason codes,"²⁵ one of the fields of the CAIRS database, present problems as well. In 1986, instructions for designating these codes requested that installations specify why commercial activities were performed in-house, if they had not been contracted. This instruction changed in 1992 to specify the exemption status of those activities. However, data compiled in both manners are commingled in the database, and it is unclear which guidelines were used. This problem is discussed in detail in Appendix B.

²⁵Since it is incorrect to state that all commercial-activity functions may be contracted, a field exists in the CAIRS database to explain why it may be kept in-house ("reason codes"). As explained, there is confusion over guidelines for assigning these codes.

Accuracy of USMC Commercial Activities Database Needs Improving: Changes in Military Billets

NDRI

Military Change



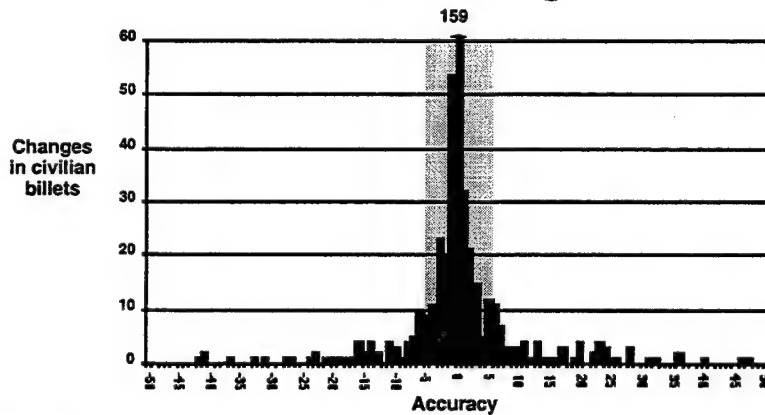
RAND

NOTE: Light gray shading indicates ± 5 accuracy range.

Accuracy of USMC Commercial Activities Database Needs Improving: Changes in Civilian Billets

NDRI

Civilian Change



RAND

NOTE: Light gray shading indicates ± 5 accuracy range.

In 1997, additional interest in sourcing competitions prompted the USMC to work closely with the Department of the Navy Management Improvement Team (DONOMIT) to organize and analyze its

commercial activities. As the figures above indicate, significant changes occurred in the number of military and civilian personnel in commercial activities throughout the USMC. Some activities gained billets, and some lost; the bulk of activities gained or lost 5 or fewer billets; some activities had very significant shifts in billet totals.

Large variances in the number of billets in some commercial activities raise further questions about the accuracy of the data as opposed to a possible shifting of workload between military and civilian billets and between installations. Data differences could be due to data input or coding/category accuracy, or to incomplete or missing data. They could also be due to USMC decisions to increase or decrease the workload or number of activities at various locations.

Table A.1 shows the increases or decreases between the DONOMIT estimates and those in the CAIRS database in civilian and military billets, for major categories of activities at each USMC location.

We expected changes to be less significant when aggregated to major activities than to specific activities, because of possible uncertainty in the classification of each billet. Instead, they were actually larger.

Table A.1
Differences Between DONOMIT Survey and CAIRS Data

		HQBN Arlington	MCAGCC 29 Palms	MCAS Beaufort	MCAS Cherry Point	MCAS New River	MCAS Yuma	MCB Hawaii	MCB Lejeune	MCB Pendleton	MCB Quantico	MCLB Albany	MCLB Barslow	MCRD Parris Island	MCRD San Diego	Grand Total
G: Social Services	Civ Mil	-18 11	653 9	5 -8	72 20	28 20	13 -3	-96 -21	352 39	20 3	58 17	53 6	1 -7	7 -6	23 -2	1171 78
H: Health Services	Civ Mil	0 0	0 0	0 0	3 7	-1 2	-1 4	-3 3	0 0	0 0	0 0	5 2	-5 2	6 0	-6 0	-2 20
J: Intermediate Maint	Civ Mil	-1 1	-16 -64	0 0	4 8	0 1	-2 6	0 0	0 10	0 0	165 -4	0 0	0 0	0 2	-7 1	143 -39
K: Depot Repair	Civ Mil	0 0	-174 92	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	-174 92
S: Installation Serv	Civ Mil	-18 48	-16 -26	32 -183	31 188	-68 100	0 -9	12 0	-13 35	119 -29	61 26	37 35	-138 -73	3 -471	16 20	58 -359
T: Other Nonmfg	Civ Mil	-10 177	-45 -89	-95 -1	-21 -22	-1 15	-16 -65	5 -5	-24 6	-17 68	40 76	2 14	-9 -15	-6 -1	-16 16	-213 174
U: Education & Train	Civ Mil	-1 1	34 128	0 0	-1 -5	0 0	0 0	0 0	-3 -113	0 0	92 1403	-17 15	0 0	0 0	-41 228	63 1657
W: ADP	Civ Mil	0 0	7 15	-9 9	-7 -10	2 8	0 3	2 1	-4 0	-1 7	2 31	-16 4	23 1	-1 -3	-24 -26	-26 40
X: Manufactured Prod	Civ Mil	0 0	2 1	-2 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 2
Z: Real Property Maint	Civ Mil	0 0	31 -4	-55 0	-5 -1	3 16	0 -10	3 -3	13 0	18 -10	10 -1	-19 4	17 6	-2 -2	-3 0	11 -5
Total Civ Total Mil		-48 238	476 62	-124 -182	76 165	-37 162	-6 -74	-77 -25	321 -23	139 39	428 1548	45 80	-111 -86	7 -481	-58 237	1031 1660

Change = DONOMIT - CA Inventory

Negative numbers mean CA numbers were higher than DONOMIT numbers; positive numbers mean DONOMIT numbers were higher than CA Inventory numbers.

Tables A.2 and A.3 show the USMC's attempt to validate (by doing a detailed inventory of billets) the actual number of billets assigned to Library Services and other morale, welfare, and recreation (MWR) activities. We compared the validated numbers with both the CAIRS data and the DONOMIT data. The variance for both sets of data from the validated numbers suggests that the USMC needs to improve its process for collecting information on the number and distribution of military and civilian personnel assigned to commercial activities.

Table A.2
Differences Between Validated Billets and CAIRS Data (Validated – CA Inventory)

		HQBN Arlington	MCAGCC 29 Palms	MCAS Beaufort	MCAS Cherry Point	MCAS New River	MCAS Yuma	MCB Hawaii	MCB Lejeune	MCB Pendleton	MCB Quantico	MCLB Albany	MCLB Barstow	MCRD Parris Island	MCRD San Diego	Grand Total
LIBRARY SVCS	Civ	0	1	1	-1	1	0	-4	8	13	-4	0	0	-1	0	14
	Mil	0	0	0	0	0	0	0	-1	0	0	0	1	0	0	0
OTHER MWR	Civ	9	24	-2	4	15	0	-111	25	-14	26	8	9	-1	1	-7
	Mil	20	-19	-1	16	-2	-7	-13	64	116	-15	5	-4	1	-2	159
Total Civ		9	25	-1	3	16	0	-115	33	-1	22	8	9	-2	1	7
	Total Mil	20	-19	-1	16	-2	-7	-13	63	116	-15	5	-3	1	-2	159

Table A.3
Differences Between Validated Billets and DONOMIT Data (Validated – DONOMIT)

	HQBNArlington	MCAGCC29 Palms	MCASBeaufort	MCASCherry Point	MCASNew River	MCASYuma	MCBHawaii	MCBLejeune	MCBPendleton	MCBQuantico	MCLBAlbany	MCLBBarstow	MCRDParris Island	MCRDSan Diego	Grand Total
LIBRARY SVCS	Civ	0	3	0	0	0	0	3	-12	-2	-27	2	-1	-1	-33
	Mil	0	0	0	0	0	0	0	0	-8	0	1	0	0	-7
OTHER MWR	Civ	4	-589	-6	4	-5	1	-52	-279	-16	49	4	-1	-11	-909
	Mil	13	-9	16	20	4	-7	8	24	114	12	5	8	1	214
Total Civ		4	-586	-6	4	-5	1	-49	-291	-18	22	6	-2	-12	-942
Total Mil		13	-9	16	20	4	-7	8	24	114	4	6	8	1	207

Table A.4
Discrepancies for Other MWR Billets Suggest Accuracy of CA and
DONOMIT Data Is Questionable

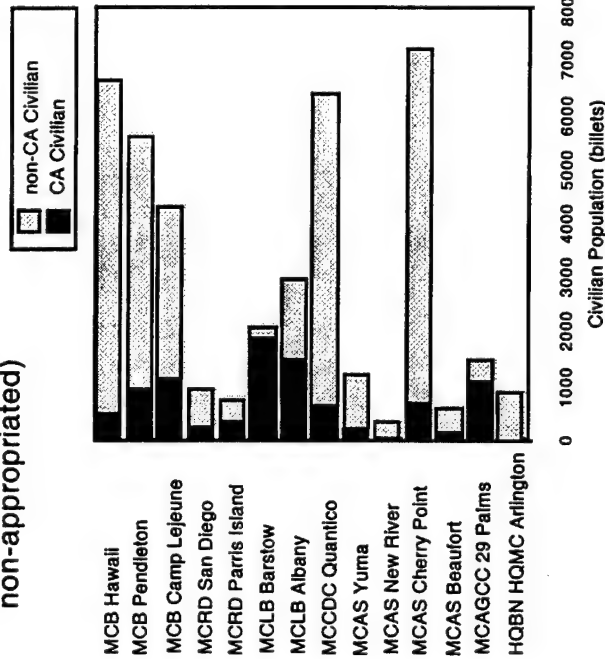
	Number of Discrepancies							
	29 Palms		Camp Lejeune		Hawaii		Camp Pendleton	
Data Source	CIV	MIL	CIV	MIL	CIV	MIL	CIV	MIL
CA	11	67	29	59	142	38	66	18
DONOMIT	624	57	330	99	83	18	68	20
VALIDATED	35	48	54	123	31	26	52	134

The high variance between the civilian and military billets in the CAIRS database and those in the DONOMIT database and between the two databases and the USMC validated numbers (Table A.4) suggests that using either the CAIRS or DONOMIT data to target and to estimate the savings from sourcing competitions would be questionable. The USMC needs to improve the accuracy of these data, given its interest in sourcing competition as a way to produce savings.

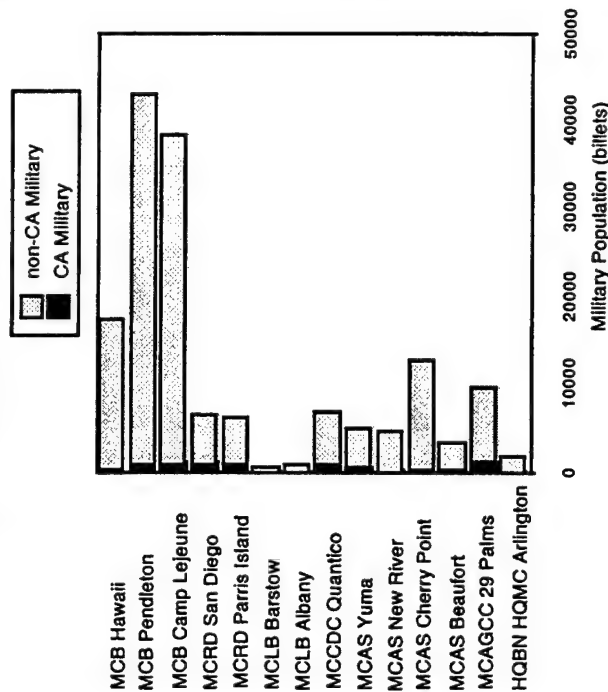
Commercial Activities Are a Small Fraction of the Total Civilian and Military Populations

NDRI

CA Civilians 23% (9,634 of 41,710)
of total Civilian population (including
non-appropriated)



CA Military 6.5% (10,319 of 158,821)
of total Military population

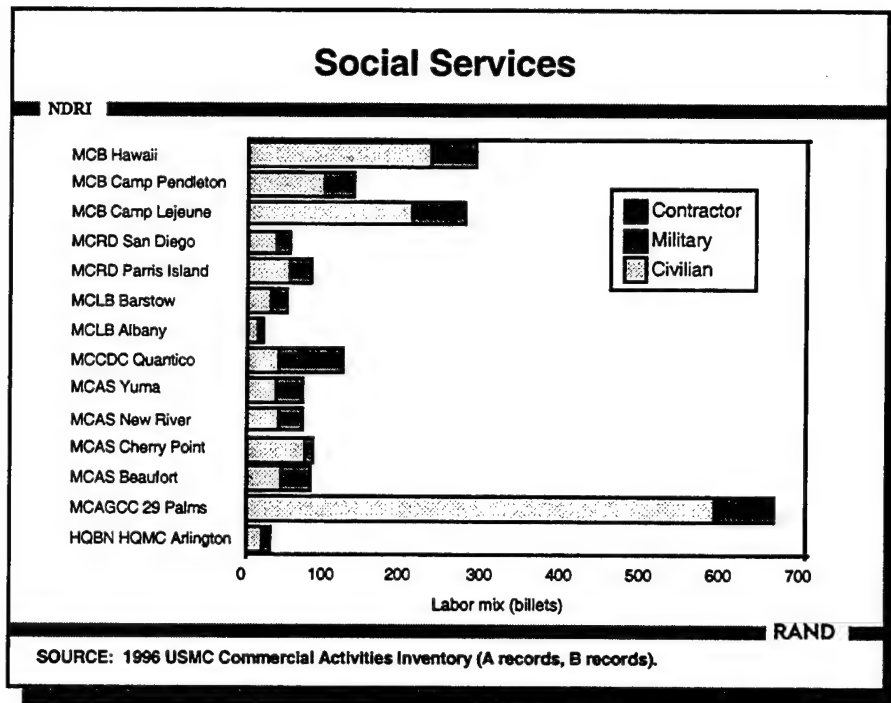


RAND

SOURCES: 1996 USMC Commercial Activities Inventory (A records, B records);
1996 Marines Almanac.

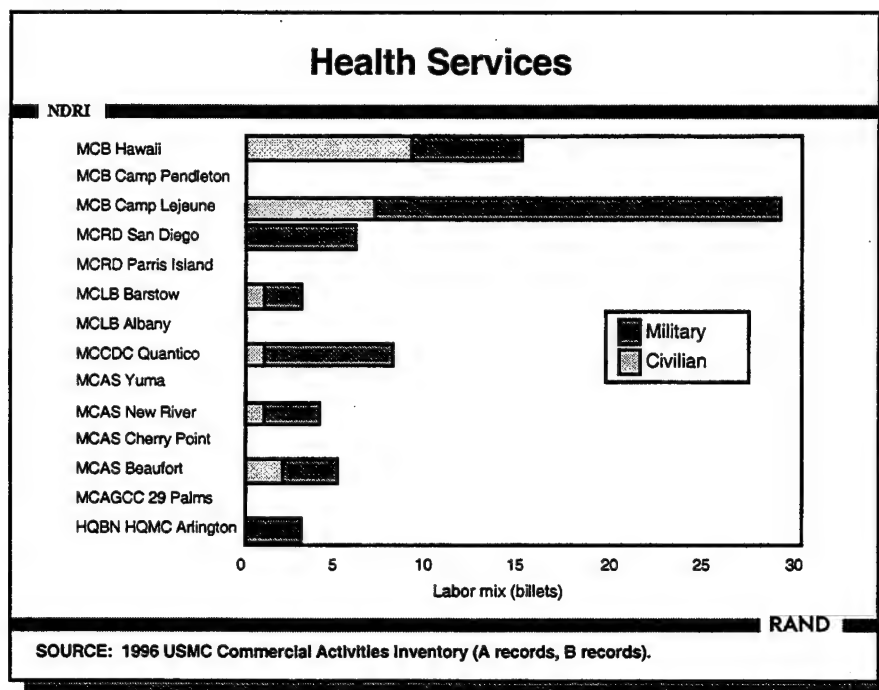
The graphs on p. 48 show the total number of civilian and military personnel at each USMC installation and the number of these personnel who are in jobs classified as "commercial activities." Except for the depots and training center at Twenty-Nine Palms, commercial activities are a small fraction of the civilian and military population. Many activities such as health services are easily exempted from the cost-comparison process because they are considered "inherently governmental" or needed for deployment, training, or rotation.

The Commercial Activities database does not include non-appropriated (positions that are not appropriated by Congress; salaries are paid by fees for services) civilians in the USMC budget. Appropriated civilians, a population of 18K (United States Marine Corps, 1997, p. 54), represent less than 50 percent of the over 40K civilian population on Marine installations. Many of these non-appropriated civilians are employed in MWR or non-Marine businesses. They do not have the same rights as civilians whose salaries are appropriated. Within the DoD, much outsourcing has been focused on non-appropriated activities. Thus, the military and civilian populations in the Commercial Activities database represent small fractions of the total military and civilian populations on Marine installations.



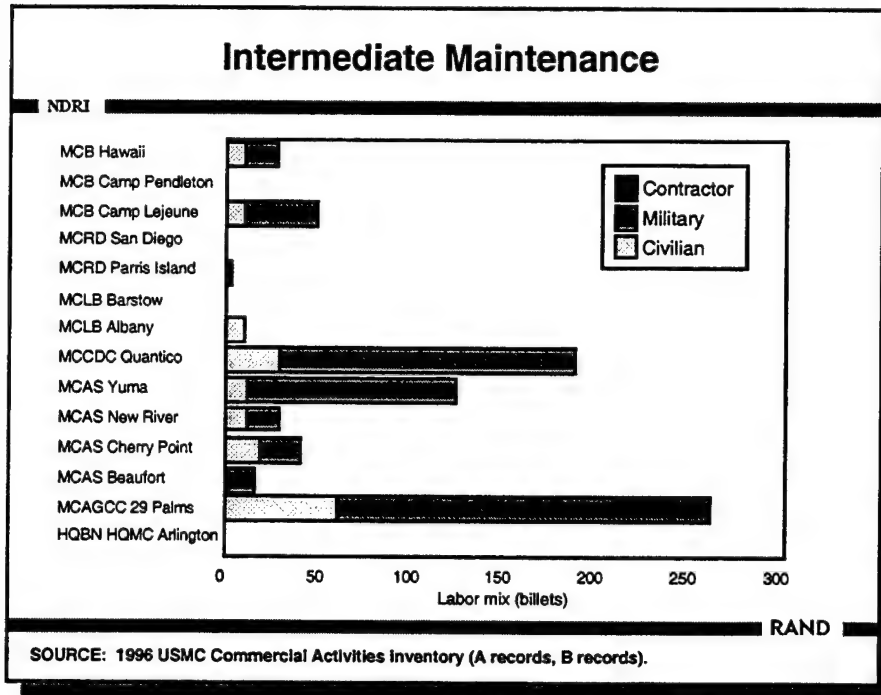
In the following charts, we present the labor forces employed by each USMC installation for a specific function. Here, we see that social services are performed largely by civilian personnel and by a smaller proportion of military staff. Contracting is negligible.

The activities designated as "social services" include commissary store operation, clothing sales store operation, recreational, library services, other MWR services, community services, chaplain activities and support services, care of remains of deceased personnel and/or funeral services, berthing Base Officers Quarters and Base Enlisted Quarters (BOQ/BEQ), family services, and other social services. Most of these social services have no deployment or inherently governmental component.



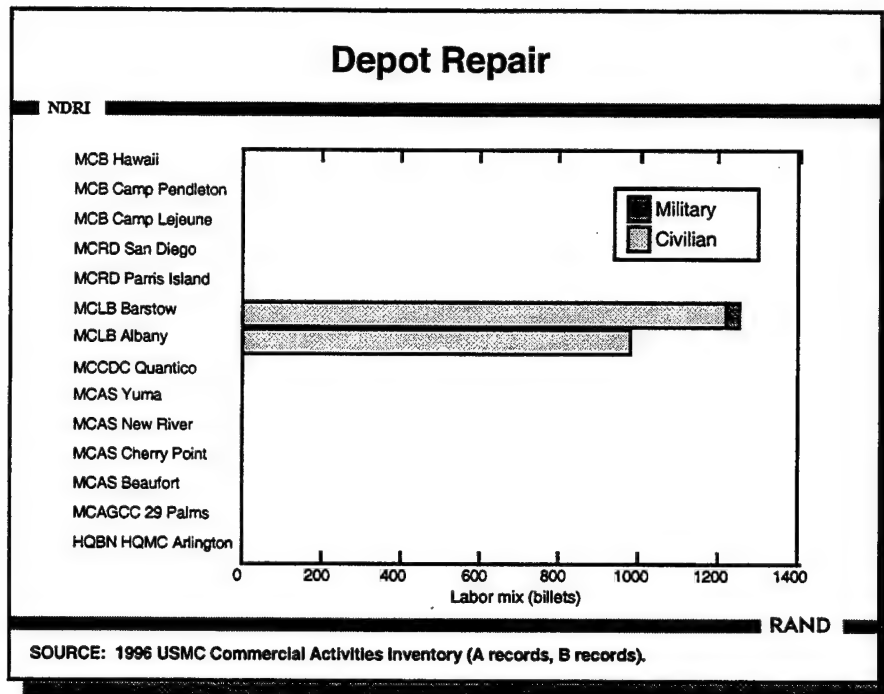
With health care, we see evidence of possible problems with data input to the Commercial Activities database. Six installations reported no health care activity. The Navy provides the USMC with health services, so there may be uncertainty about whether the Navy or the Marines count Navy personnel in their Commercial Activities database. For those installations included, health care is staffed largely by military workers, except at MCB Hawaii, where civilian personnel provide most of these services. This is in contrast to MCRD San Diego and HQBN HQMC Arlington, which employ no civilian personnel in these services.

Health care includes activities such as hospital care, surgical care, nutritional care, pathology services, radiology services, pharmacy services, physical therapy, materiel services, orthopedic services, ambulance service, dental care, dental laboratories, clinics and dispensaries, veterinary services, medical-records transcription, nursing services, preventive medicine, occupational health, drug rehabilitation, and other health services. Note that health services are easily exempted from sourcing competitions because they have been considered "inherently governmental" and/or have direct deployment missions.



Intermediate repair activities include repair of aircraft and associated equipment; aircraft engines; missiles; vessels; combat vehicles; noncombat vehicles; electronic and communications equipment; railway equipment; special equipment; armament; dining-facility equipment; medical and dental equipment; containers; textiles, tents, and tarpaulins; metal containers; training devices and audiovisual equipment; industrial plant equipment; test, measurement, and diagnostic equipment; other test, measurement, and diagnostic equipment; aeronautical support equipment; and other intermediate, direct, or general repair and maintenance of equipment.

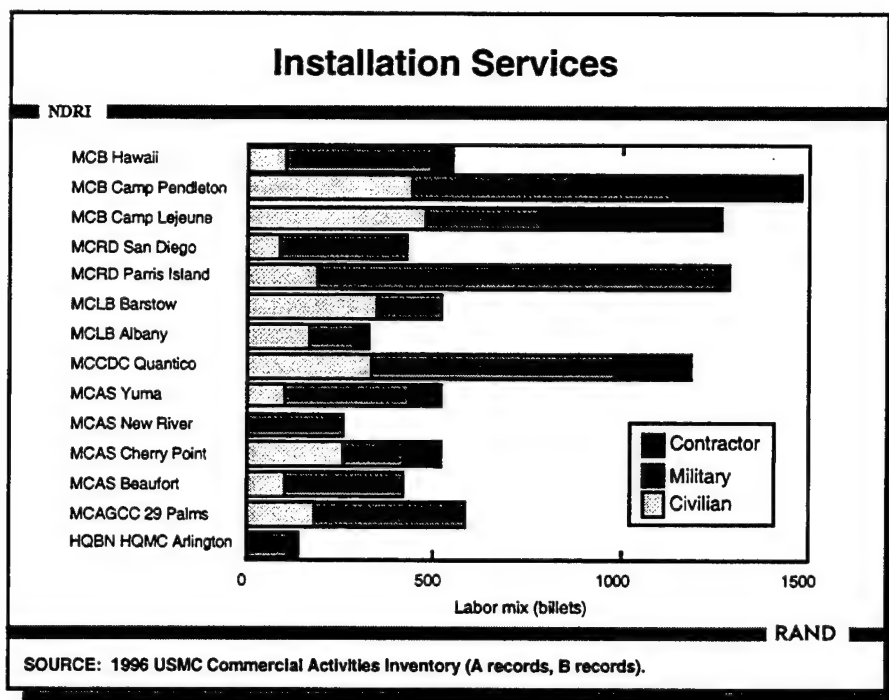
Most intermediate maintenance for the reporting installations appears to be done by military personnel. Many of these activities are currently scheduled to deploy with Marine forces.



Depot-level repair was reported only at MCLB Albany and MCLB Barstow, as expected. Both employ predominantly civilian labor forces. They report no contract work.

Depot-level repair includes repair of missiles; aircraft and associated equipment; aircraft engines; vessels; combat vehicles; noncombat vehicles; electronic and communications equipment; railway equipment; special equipment; armament; industrial-plant equipment; dining-facility equipment; medical and dental equipment; containers; textiles, tents, and tarpaulins; metal containers; test measurement and diagnostic equipment; other test measurement and diagnostic equipment; aeronautical support equipment; and other depot repair, maintenance, modification, conversion, or overhaul of equipment.

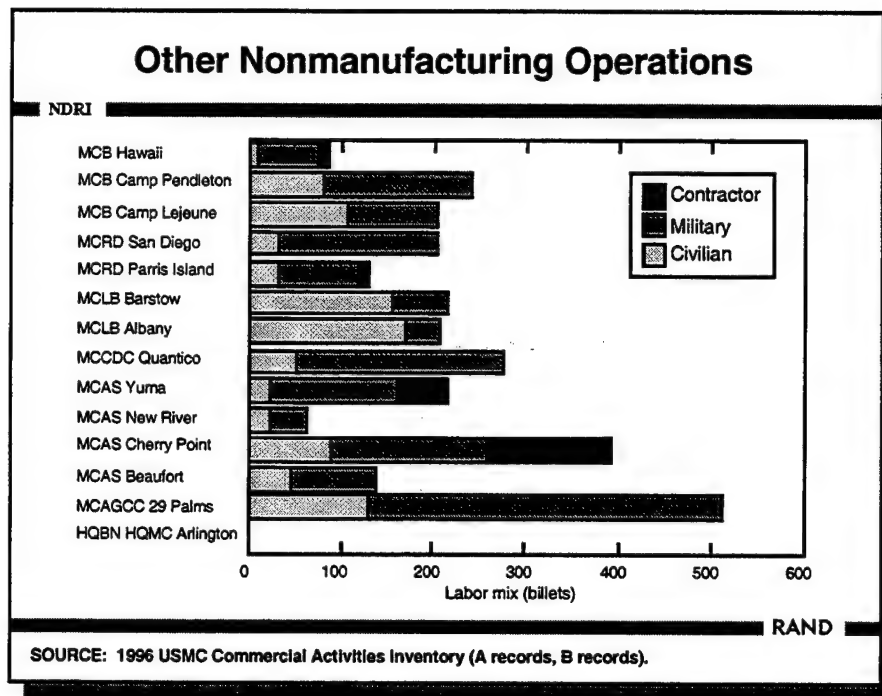
Congressional requirements for maintaining 50 percent of depot workload in-house restrict outsourcing options. In addition, depot workload is exempt from A-76 competitions, but must undergo an alternative cost comparison.



Installation services show the largest mix of military, civilian, and contractor labor populations. The large proportion of contracting at MCB Lejeune demonstrates that significant contracting is possible for this function. Installations that currently show little or no contracting may choose to target installation services for outsourcing opportunities.

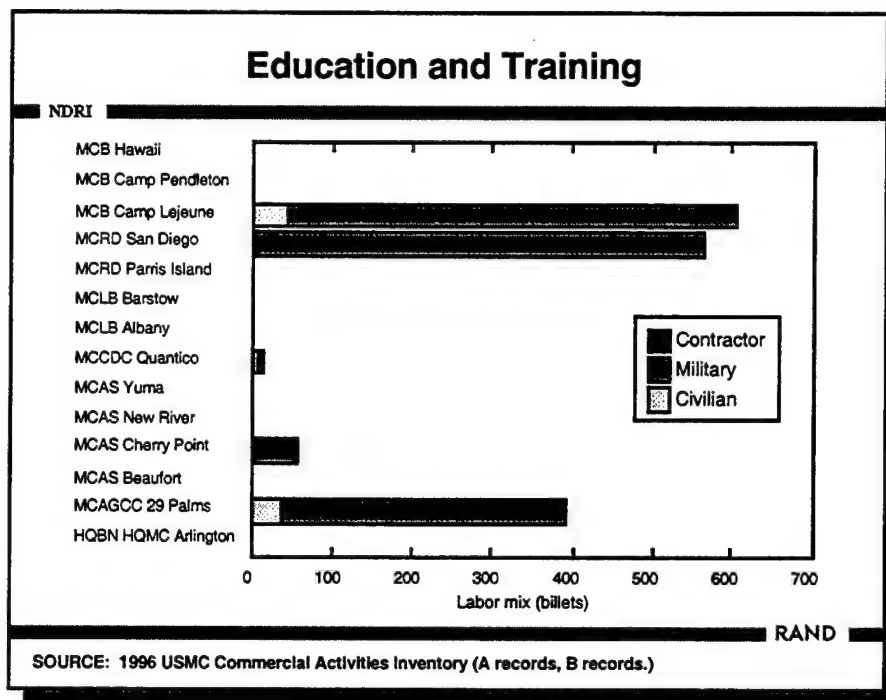
Installation services include natural-resource services, advertising and public relations services, financial and payroll services, debt collection, installation bus services, laundry and dry cleaning services, custodial services, pest management, refuse collection and disposal services, food services, furniture, office equipment, motor vehicle operation, motor vehicle maintenance, fire prevention and protection, military clothing, guard service, electrical plants and systems, heating plants and systems, water plants and systems, sewage and waste plants and systems, air conditioning and refrigeration plants, other services or utilities, base supply operations, warehousing, distribution of publications, installation transportation office, museum operations, contractor-operated parts stores and contractor-operated civil engineering stores, and other installation services.

Most, if not all, of these activities have been outsourced somewhere within the DoD.



Other nonmanufacturing operations include ocean terminal operations, storage and warehousing, cataloging, acceptance testing, architect-engineering services, operation of bulk liquid storage, printing and reproduction, audiovisual and visual information services, mapping and charting, administrative telephone service, air transportation services, water transportation services, rail transportation services, engineering and technical services, fueling service (aircraft), scrap-metal operation, telecommunication centers, other communications and electronics systems, systems engineering and installation of communications systems, preparation and disposal of excess and surplus property, administrative support services, special studies and analyses, training devices and simulators, and other nonmanufacturing operations.

At MCAS Cherry Point, contractors make up about one-third of the labor force, and at MCAS Yuma, contractors make up about one-quarter of the labor force. There is no contractor labor at MCASs New River and Beaufort. Other than size of installation, data reveal no explanation for these differences.

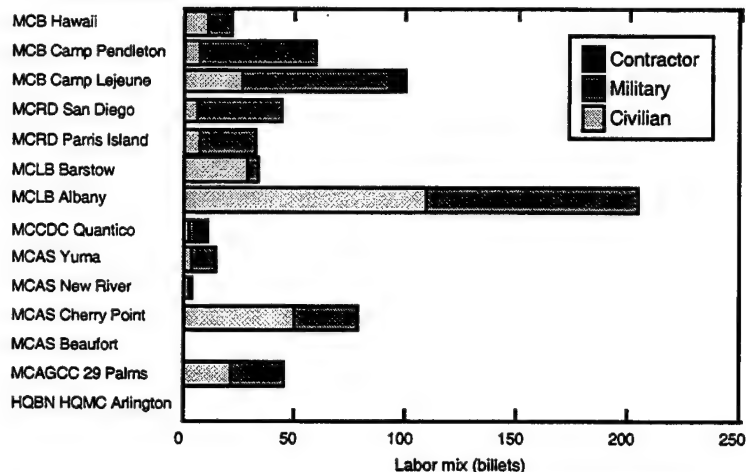


Like health care, education and training may have problems with the data. Only five installations are included, suggesting a possible error. In particular, MCRD Parris Island, MCB Camp Pendleton, and MCB Hawaii should be similar to installations of similar command—MCRD San Diego and MCB Lejeune. Those that are included show mostly military labor forces and little or no contracting.

Education and training activities include recruit training; officer acquisition training; specialized skill training; flight training; professional development education; professional military education; graduate education; fully funded, full-time, other full-time education programs; off-duty (voluntary) and on-duty programs; civilian education and training; dependent education; training development and support (not reported elsewhere); and other training.

Automatic Data Processing (ADP)

NDRI

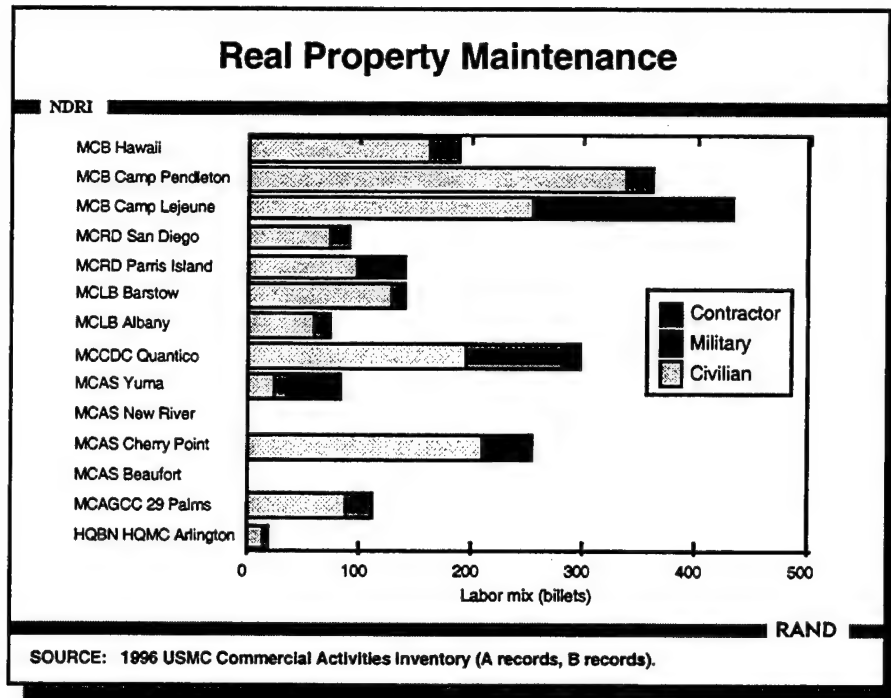


RAND

SOURCE: 1996 USMC Commercial Activities Inventory (A records, B records).

Automatic Data Processing (ADP) is interesting because of the widely varying ratios of civilians to military personnel (and contractors at MCCDC Quantico, MCB Camp Lejeune, and MCAS New River) among the installations. At MCB Camp Pendleton, military personnel make up the overwhelming majority, in contrast to MCLB Barstow, where the mix is reversed in favor of civilian staff. Such widely varying employment strategies may suggest reevaluation of what is the most-effective labor mix. ADP is also one of the most commonly outsourced functions in the private sector.

ADP activities include data processing services; maintenance of ADP equipment; systems design, development, and programming services; development and maintenance of applications software; development and maintenance of systems software; software services for tactical computers and automated test equipment; and other automatic data processing.



Real property maintenance is striking for how MCB Lejeune is able to contract roughly a third of its labor force and MCAS Yuma over a half of its, while many others have little or no contracted labor force. Also, civilian labor makes up most of the force. MCAS New River, MCAS Beaufort, and installations not included in the CA database obviously occupy property, and their absences should be corrected.

Real property maintenance includes buildings and structures (family housing), buildings and structures (other than family housing), grounds and surfaced areas, railroad facilities, waterways and waterfront facilities, and other maintenance, repair, alteration, and minor construction of real property.

70% of Contracts Are for Installation Services: Maintenance, Food, Custodial, and Refuse

NDRI

USMC has 84 service contracts of \$100,000 or more

<u>Most Contracted</u>	<u>Number of Contracts</u>	<u>CMEs</u>	<u>\$M/yr</u>
• family housing bldg maint.	11	59	\$7.2
• nonfamily housing bldg maint.	10	128	\$5.6
• grounds maintenance	10	138	\$10.9
• food services	7	1,036	\$21.2
• refuse and disposal	6	37	\$2.7
• custodial services	6	106	\$2.1
<u>Other notable</u>			
• architect-engineering services	2	60	\$4.3
• laundry/dry cleaning	3	111	\$1.5
• installation transportation office	1	4	\$1.9

RAND

Current USMC contracting is centered on building and ground maintenance (both family and nonfamily housing), as well as installation functions such as food, refuse, and custodial services. Collectively, they add to almost \$50M/yr and over 70 percent of the total USMC contracting costs. Food services employs the largest number of CMEs and has the highest valued contracts.

Table A.5 profiles each installation and the commercial activities of each.

Table A.5
Civilian, Military, and Contractor Labor Force at USMC Installations

	HQBN HQM Arlington	MCAGCC Twenty-Nine Palms	MCAS Beaufort	MCAS Cherry Point	MCAS New River	MCAS Yuma	MCB Camp Lejeune	MCB Camp Pendleton	MCB Hawaii	MCCDC Quantico	MCLB Albany	MCLB Barstow	MCRD Parris Island	MCRD San Diego	Grant Total	
Social Services	Civ Mil Contr	22 9 0	585 76 0	44.5 37 0	74 10 0	39 33 0	37 35 0	207 68 0	99 34 0	230 58 0	39 77 4	13 6 0	30 21 0	53 27 0	38 17 0	1,510.5 508 4
Health Services	Civ Mil Contr	0 3 0	0 0 0	2 3 0	0 0 0	1 3 0	0 0 0	7 22 0	0 0 0	9 6 0	1 7 0	0 0 0	1 2 0	0 0 0	0 6 0	21 52 0
Intermediate Maintenance	Civ Mil Contr	0 0 0	59 202 0	1 15 0	19 21 0	11 17 0	12 112 0	10 38 0	0 0 0	9 18 0	28 160 0	9 0 0	0 0 0	2 1 0	0 0 0	160 584 0
Depot Repair	Civ Mil Contr	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	981 35 0	1,220 0 0	0 0 0	0 0 0	2,201 37 0
Installation Services	Civ Mil Contr	2 107 28	179 404 0	96.6 322 0	258 166 101	0 253 0	97 339 89	478 307 483	438 693 347	97 393 60	332 651 210	161 128 40	348 175 1	186.5 1,065.5 37	90 337 0	2,763.1 5,340.5 1,396
Other Nonmfg.	Civ Mil Contr	0 0 0	131 379 0	47 90 0	90 169 133	24 40 0	26 135 56	108 96 0	81 159 0	10 64 12	52 223 0	170 37 0	154 63 0	34 84 10	34 170 0	961 1,709 211
Education & Training	Civ Mil Contr	0 0 0	37 353 0	0 0 0	4 52 0	0 0 0	0 1 0	41 562 0	0 0 0	0 0 0	5 2 4	0 0 0	1 0 0	0 0 0	3 562 0	91 1,532 4
Auto. Data Processing	Civ Mil Contr	0 0 0	22 24 0	0 0 0	50 28 0	3 1 0	4 10 0	26 66 8	8 51 0	11 10 0	3 2 6	109 96 0	29 5 0	7 25 0	6 38 0	278 356 14
Real Prop. Maintenance	Civ Mil Contr	15 4 0	89 22 0	0 0 0	209 1 43	0 0 0	24 11 50	255 0 178	337 21 4	162 25 0	195 86 16	60 6 8	130 3 8	98 2 41	73 19 0	1,647 200 348
Total Civ Total Mil Total Contr		39 123 28	1,102 1,460 0	191.1 467 0	704 447 277	78 347 0	202 644 195	1,132 1,159 669	963 958 351	528 574 72	655 1,208 240	1,503 275 48	1,913 304 9	380.5 1,204.5 88	244 1,149 0	9,634.6 10,319.5 1,977

SOURCE: 1996 USMC Commercial Activities Inventory Reporting System.

APPENDIX B

There Is Confusion over Which Reason Codes to Use

NDRI

- **1992 Guidelines from Marine Corps Order 4860.3D, Enclosure 5**
 - national defense, training, etc.
- **1996 Guidelines from OMB Circular A-76**
 - exemption status

RAND

The USMC Commercial Activities database includes “reason codes” information about installation functions. However, the data are problematic, because there is confusion over the basis for the code. Two different guidelines for reporting reason codes are represented in the database.

In 1992, reason codes were instituted to specify why a commercial activity might be kept in-house rather than outsourced. In 1996, guidelines from OMB Circular A-76 changed those guidelines and instructed installations to specify various reasons for exemption status of a commercial activity. Both guidelines for designating reason codes are listed in Table B.1.

Table B.1
1992 and 1996 Guidelines for Specifying CAIRS Reason Codes

Reason Code	1992 Guidelines*	1996 Guidelines**
A	National defense	Exempt by the agency from A-76
B		Subject to cost comparison
C	Training & rotation	Exempt by Congress, Executive Order, or OMB
D	Delay or disruption	Cost comparison or conversion progress
E	No commercial source	In-house as a result of cost comparison
F	MEO won	Review is pending force restructuring decision
G	A-76 underway	Legislation prevents conversion
H	Contractor won A-76	Waiver issued
K	Contractor for non-cost reasons	
N	Review in process	
X	Installation commander decision	
Y	A-76 time exceeded	
Z	Other	

*Department of the Navy, 1992.

**OMB, 1996.

The redefinition in 1996 evidently caused confusion among installations, because both guidelines are commingled in the same place in the USMC Commercial Activities database.

Luckily, this shuffling can be separated for most installations, assuming that individual installations used only one set of guidelines. If an installation reported anything with "K through Z" reason values, they were using the 1992 codes, since these letters do not appear in the 1996 definitions. To confirm our assumption, these installations also never include the "B," which is in the 1996 codes but not the 1992 codes. Installations that appear to use the 1992 and 1996 guidelines are listed in Table B.2 on the next page.

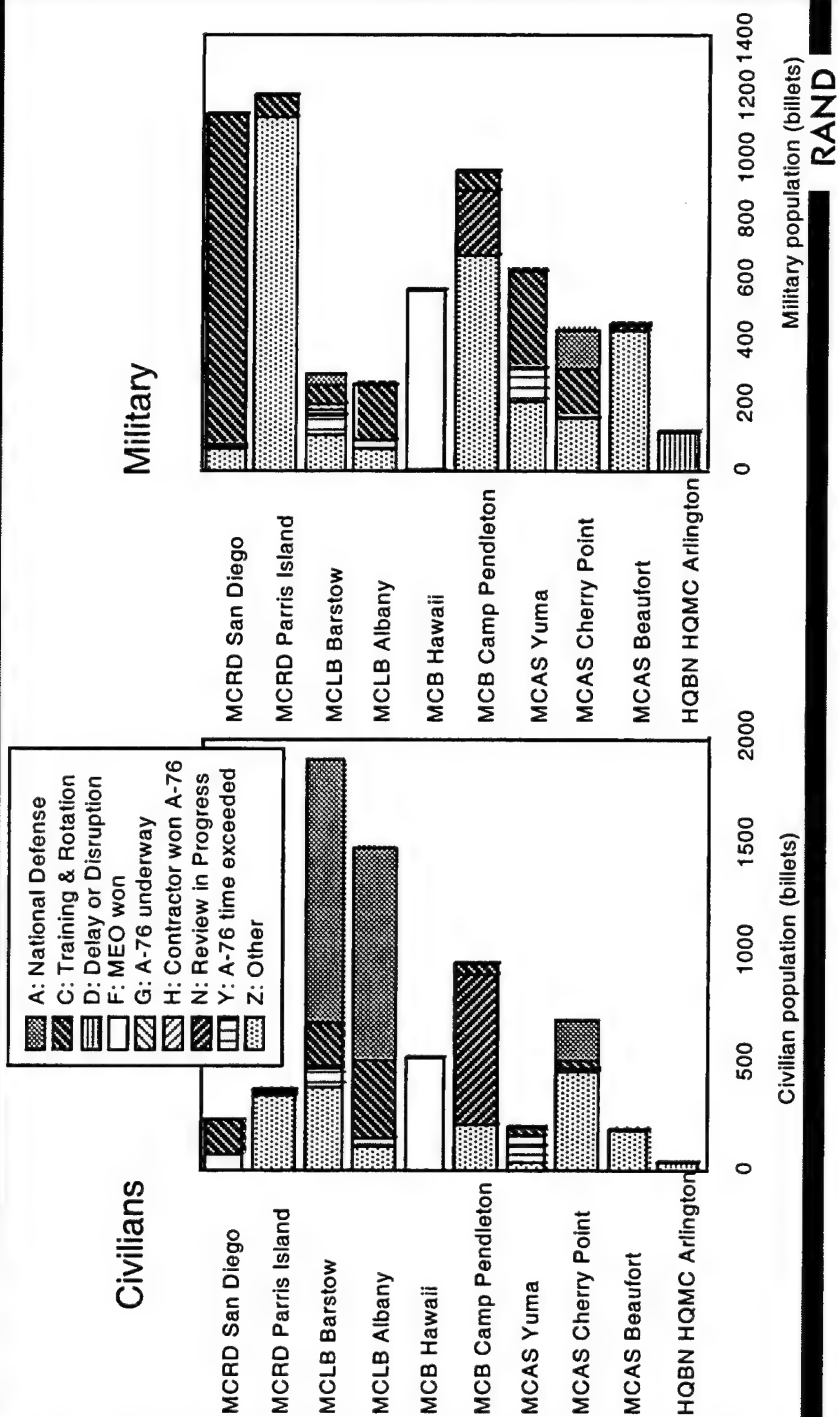
Table B.2
1992 and 1996 Guidelines and Installations

1992 Guidelines	1996 Guidelines
HQBN HQMC Arlington	MCAGCC Twenty-Nine Palms
MCAS Beaufort	MCAS New River
MCAS Cherry Point	MCB Camp Lejeune
MCAS Yuma	MCCDC Quantico
MCB Camp Pendleton	
MCB Hawaii	
MCLB Albany	
MCLB Barstow	
MCRD Parris Island	
MCRD San Diego	

The only two installations that cannot be separated using this reasoning are HQBN HQMC Arlington and MCB Hawaii, because neither used "B" nor a value past "H." HQBN HQMC Arlington coded all commercial activities as value "D," and MCB Hawaii codes all functions "F." After examining definitions for "D" and "F" of both 1992 and 1996 guidelines, we concluded that it seems more plausible that the 1992 guidelines were used, because the USMC had not initiated any cost comparisons in 1996 and MCB Hawaii has a large civilian workforce, which suggests that the MEOs won any competitions rather than that a force restructuring occurred.

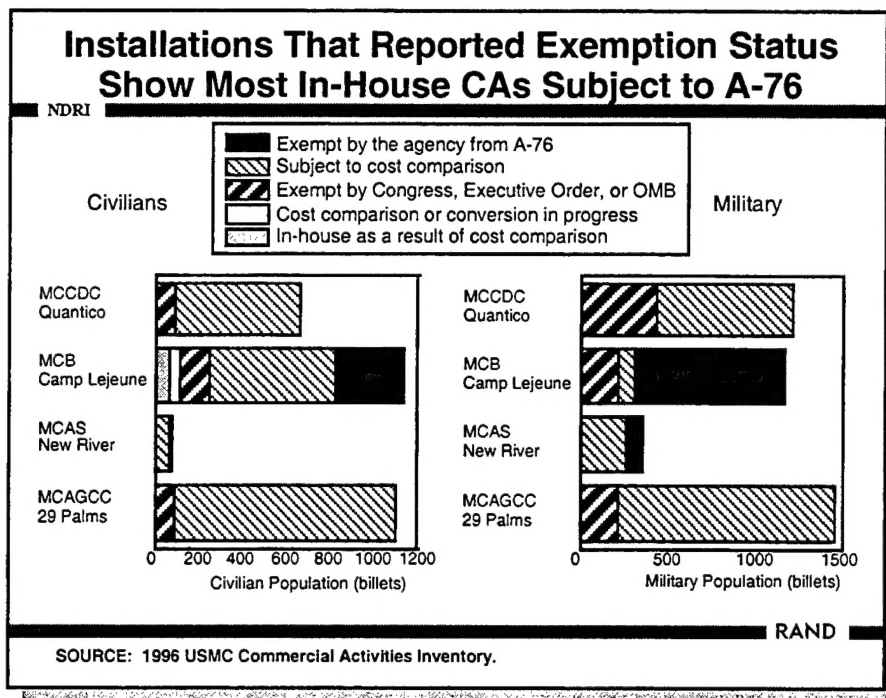
Reasons for Keeping CAs In-House Differ for Civilians and Military

NDRI



SOURCE: 1996 USMC Commercial Activities Inventory.

Those installations using the 1992 guidelines for specifying reason codes show a wide range of reasons for performing commercial activities in-house, in the charts on the facing page. Appropriated civilians were claimed to be employed for national defense purposes. On the other hand, military either claimed training needs or "other" reasons. Overall, the dominant pattern appears to be lack of consensus among installations for performing activities in-house.



Installations using the 1996 guidelines to report exemption status of commercial activities acknowledged that most CAs were subject to an A-76 cost comparison. Exempt activities most likely received that status through Executive Order or by the agency.

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